

Correspondence

TO THE EDITOR, *British Journal of Venereal Diseases*

Role of the VDRL test in the detection of syphilis

Sir,
In the paper by P Diggory (*Br J Vener Dis* 1983;59:8-10) it was stated that, "the TPHA test results on sera from patients treated during the primary and early secondary stages of the disease usually become negative within one or two years." Work carried out in Edinburgh¹ was misquoted in support of this statement. Our data showed that the TPHA test results did not become negative in any of the cases of treated syphilis. A more detailed study² confirmed these earlier findings: in none of 55 cases of early syphilis in which the TPHA result was positive before treatment did the test become negative after treatment.

We also have reservations regarding the general proposal that the VDRL test should be withdrawn from initial testing of syphilis except where early primary disease is suspected. Owing to the present low level of primary syphilis it could be argued that genitourinary medicine clinics themselves fall into this category: indeed this would appear to be the case at Southampton. Reports of the reactivity of the TPHA test in primary syphilis are conflicting. This may be due to variability in the IgM binding capacity of the TPHA reagents. It should also be stressed that the TPHA reaction, when it is positive in primary syphilis, is invariably only very weakly reactive whereas the VDRL result is usually unequivocally positive. Therefore screening with the TPHA test alone provides very little safety margin, and a slight reduction in test sensitivity could result in cases of early syphilis being missed. The limitations of relying solely on the TPHA test for screening would be much more apparent in a larger sample: "the theoretical risk of missing cases of primary syphilis at genitourinary clinics" could become a significant reality if such a policy were adopted nationally.

We maintain our earlier view^{1,3} that particularly in clinics, where early detection is so important, the VDRL and TPHA tests are the best screens available. The comment that doctors in areas other than genitourinary medicine may be misled by a

VDRL-positive/TPHA-negative result into thinking that a patient has syphilis is not a valid criticism of the combined screening schedule: an explanatory comment added to the issued report should overcome any such misunderstanding.

Yours faithfully,

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References

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2. Hunter JM. The effect of treatment on the *Treponema pallidum* haemagglutination test in early syphilis. *Scott med J* 1979;24:307-12.
3. Robertson DHH, McMillan A, Young H, Henrichsen C. Clinical value of the *Treponema pallidum* haemagglutination test. *Br J Vener Dis* 1975;51:79-82.

TO THE EDITOR, *British Journal of Venereal Diseases*

Continuing value of the VDRL test and biological false reactions

Sir,

Dr Diggory (this Journal, 1983;59:8-10) recommends dispensing with the Venereal Diseases Research Laboratory (VDRL) test in favour of the *Treponema pallidum* haemagglutination assay (TPHA) as, except in early primary syphilis, the VDRL test contributes little useful information and a positive reaction associated with a negative TPHA result may mislead many doctors into regarding their patients as having syphilis. May I suggest that this recommendation is much too sweeping. It takes no regard of the merits of two distinct serological reactions which, when both positive, contribute to a check that the correct sample has been examined and identified. Furthermore, the potential diagnostic value of a non-specific biological false positive reaction is discounted.

It must surely be rare for a microbiologist to report a positive reaction without commenting on the probable clinical significance. When the clinical information on the request form is inadequate the microbiologist will generally discuss the relevance direct with the clinician.

In a country where congenital syphilis is now exceedingly rare, a case can be made on the grounds of cost effectiveness for limiting antenatal screening for treponemal disease to a single serological test. Although more specific than the VDRL test, the TPHA is more subject to variation in results between laboratories and to batch variation in sensitivity. The VDRL test, though non-specific, is highly sensitive and gives reproducible results even in relatively technically inexperienced hands. Perhaps it is time that serious consideration be given to discontinuing routine antenatal screening of all women and concentrating our efforts on a selected population of women at greatest risk, for instance primiparae and unsupported women, screening not only at their first antenatal booking but again in the third trimester.

Unfortunately a biological false positive (BFP) reaction when found in pregnancy or elsewhere is often discounted as irrelevant and only rarely is the examination repeated 6 months or more later. As a chronic BFP reaction may, for example, be the first serological sign of impending connective tissue disease including rheumatoid arthritis, it might be helpful to some of our patients if the significance of a BFP reaction were more consistently pursued. Even an acute BFP reaction may herald underlying unsuspected pathology. This was dramatically demonstrated in Shrewsbury some months ago when a patient, who was believed to have been adequately treated for tabes dorsalis, was found on reattendance to have a significant rise in the VDRL titre. The temptation to repeat the course of anti-treponemal antibiotic treatment was resisted. The patient was later shown to have had a "silent" coronary infarction to account for the non-specific rise in "reagin" antibodies.

Yours faithfully,

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